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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,492	06/23/2005	Hiroyuki Ichikawa	2005-1002A	3538

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WASHINGTON, DC 20006-1021

EXAMINER

SAN MARTIN, EDGARDO

ART UNIT	PAPER NUMBER
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2837

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/540,492	ICHIKAWA ET AL.	
	Examiner	Art Unit	
	Edgardo San Martin	2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it contains more than 150 words. Correction is required. See MPEP § 608.01(b).
2. The disclosure is objected to because of the following informalities:
 - In page 8, line 17 should read - - 7B - - instead of "7A".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 23 – 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray (US 1,860,146) in view of Gillingham (US 5,435,347).

With respect to claims 23 and 24, Gray teaches a muffler for a motor vehicle provided on an exhaust passage of an engine installed in a motor vehicle, comprising a casing main body (Fig.1, Item 7) positioned most outside; an exhaust gas introducing pipe (Fig.1, Item 33) constituting an end portion of the exhaust passage; a finisher (Fig.1, Item 35) positioned on an extending line of the exhaust gas introducing pipe and consisting of an inner portion positioned inside the casing main body and an outer portion extending out of the casing main body (Fig.1); a plurality of pipe members

(Fig.1, Items 22 and 30) arranged concentrically (Figs.3 and 5) to the extending portion of the exhaust gas introducing pipe and the inner portion of the finisher and having different radiuses respectively (Figs.1, 3 and 5); a silencer mechanism constituted of a plurality of expansion spaces (Fig.1, Items 40, 41, 55 and 58) and a plurality of passages (Figs.1 and 11, Items 42, 43, 38, 39, 44 and 46) constituting a restriction mechanism which are defined by the pipe members, the exhaust gas introducing pipe, the finisher and the casing main body; and a valve mechanism (Fig. 1, Item 10) communicating between the exhaust gas introducing pipe and the finisher when pressure of exhaust gas in the exhaust gas introducing pipe has exceeded a specific value; and wherein the pipe members are constituted of a first inner pipe (Fig.1, Item 30) arranged concentrically at a specific interval inside the casing main body, and a second inner pipe (Fig.1, Item 22) arranged concentrically at a specific interval inside the first inner pipe, and the exhaust gas introducing pipe and the finisher are inserted into the second inner pipe in both directions (Page 1, Line 39 – Page 3, Line 34), but fails to disclose wherein exhaust gas introducing pipe have a plurality of small holes in an extending portion extending into the casing main body, and the valve mechanism being provided in an end portion of the exhaust gas introducing pipe.

On the other hand, Gillingham teaches a muffler for a motor vehicle provided on an exhaust passage of an engine installed in a motor vehicle (Fig.1), comprising a casing main body (Fig.1, Item 10); an exhaust gas introducing pipe (Fig.1, Item 75) constituting an end portion of the exhaust passage; a finisher (Fig.1, Item 35) positioned on an extending line of the exhaust gas introducing pipe and consisting of an inner

Art Unit: 2837

portion positioned inside the casing main body and an outer portion extending out of the casing main body, and a valve mechanism (Fig. 1, Item 40) communicating between the exhaust gas introducing pipe and the finisher when pressure of exhaust gas in the exhaust gas introducing pipe has exceeded a specific value (Col.1, Line 65 – Col.4, Line 34).

It would have been obvious to a person with ordinary skill in the art to employ the Gillingham valve mechanism configuration with the Gray design because it would provide control of the exhaust gases flow, in that way controlling the efficiency of the muffler and the engine depending upon a desired performance.

With respect to claims 25, 27, 29, 31 – 34, 37 and 38, the Examiner considers that it would have been an obvious matter of design choice to provide a plurality of expansion spaces and passages connecting them in a predetermined fashion because it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8; and that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70; these modifications would not depart from the scope of Gray's invention.

With respect to claims 26, 28 and 30, the Examiner takes official notice that it is well known in the art of acoustics to employ sound absorbing material in mufflers in order to broaden their frequency range of noise to be attenuated, enhancing the performance and efficiency of the muffler.

With respect to claims 35, 36, 39 and 40, the obvious combination of the patents to Gray and Gillingham teach the limitations described in the claims (Gray: Fig.1 and

Art Unit: 2837

Page 1, Line 39 – Page 3, Line 34; and Gillingham: Figs.1 – 5 and Col.1, Line 65 – Col.4, Line 34).

Conclusion

4. The attached hereto PTO Form 892 lists prior art made of record that the Examiner considered it pertinent to applicant's disclosure.

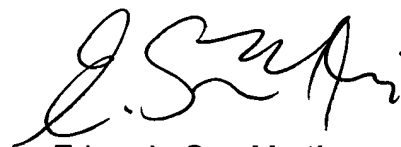
Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edgardo San Martin whose telephone number is (571) 272-2074. The examiner can normally be reached on 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-2800 ext.37. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2837

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Edgardo San Martín
Primary Examiner
Art Unit 2837
Class 181
January 8, 2007